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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/575,810

04/13/2006

Wataru Kakinoki

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06/15/2009

MURATA MANUFACTURING COMPANY, LTD.

C/O KEATING & BENNETT, LLP

1800 Alexander Bell Drive

SUITE 200

Reston, VA 20191

EXAMINER

NGUYEN, HOANG V

ART UNIT

PAPER NUMBER

2821

NOTIFICATION DATE

DELIVERY MODE

06/15/2009

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

JKEATING@KBIPLAW.COM

uspto@kbiplaw.com

Office Action Summary	Application No. 10/575,810	Applicant(s) KAKINOKI, WATARU	
	Examiner HOANG V. NGUYEN	Art Unit 2821	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 April 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3 and 5-7 is/are rejected.
- 7) ☒ Claim(s) 4 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 13 April 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>4/13/06, 7/30/07</u> . | 6) <input type="checkbox"/> Other: _____ |

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claim 6 is rejected under 35 U.S.C. 102(b) as being anticipated by Kumagai et al (JP 2001-320212).

Kumagai (Figures 2 and 4-6) discloses a card device comprising a card casing 5 housing a circuit substrate 12; and an antenna 2 which is disposed rotatably at an exterior of the card casing and is electrically connected to an electric circuit providing on the circuit substrate, the antenna having an antenna rotary shaft 6, the antenna rotary shaft being composed of a conductive material, the antenna rotary shaft extending from the exterior of the card casing towards the interior of the card casing wherein a section of the circuit substrate has a feeding terminal fixed thereto, the feeding terminal being electrically connected to the electric circuit of the circuit substrate, the feeding terminal having a pair of elastic pressing portions 34 that sandwich the antenna rotary shaft from opposite sides with elastic forces, the pair of pressing portions being in pressure-contact with a peripheral surface of the antenna rotary shaft, the antenna rotary shaft being thereby electrically connected to the electric circuit of the circuit substrate via the pressing portions.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kumagai et al.

Kumagai discloses the claimed invention except explicitly mention that the feeding terminal is fixed to the circuit substrate with a conductive bonding material. It would have been an obvious matter of design choice to affix the feeding terminal to the circuit substrate using a conductive bonding material as oppose to any other bonding techniques, since applicant has not disclosed that such difference solves any stated problem or is for any particular purpose and it appears that the invention would perform equally well with any bonding techniques.

5. Claims 1-3 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kumagai et al in view of Yamaguchi (JP 2001-069029).

Regarding claim 1, Kumagai discloses a card device comprising a card casing housing a circuit substrate 12; and an antenna 2 which is disposed rotatably at an exterior of the card casing and is electrically connected to an electric circuit provided on the circuit substrate, wherein a side wall of the card casing is provided with a through hole through which an antenna rotary shaft 6 extends, the antenna rotary shaft being disposed at a base end of the antenna and being composed of a conductive material, the antenna rotary shaft extending from the exterior of the card casing towards the interior of the card casing through the through hole, the antenna rotary shaft being disposed along a substrate surface of the circuit substrate in the card casing; wherein a section of

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the circuit substrate that is opposed to the antenna rotary shaft has a feeding terminal fixed thereto, the feeding terminal being electrically connected to the electric circuit of the circuit substrate, the feeding terminal having a pair of antenna-rotary-shaft elastically-pressing portions 34 that sandwich the antenna rotary shaft from opposite sides with elastic forces, the pair of antenna-rotary-shaft elastically-pressing portions being in pressure-contact with the antenna rotary shaft by being in surface-contact with a peripheral surface of the antenna rotary shaft, the antenna rotary shaft being thereby electrically connected to the electric circuit of the circuit substrate via the antenna-rotary-shaft elastically-pressing portions. Kumagai does not teach that the rotary shaft being separated from the substrate surface. Yamaguchi (Figure 5) discloses a card device including an antenna rotary shaft 4a being disposed along a substrate surface of the circuit substrate in the card casing while being separated from the substrate surface. It would have been obvious to one having ordinary skill in the art at the time the invention was made to employ Kumagai's card device with the antenna rotary shaft being separated from the substrate surface, as taught by Yamaguchi, doing so would provide sufficient isolation between the antenna and the circuit board for improved performance.

Regarding claim 2, as applied to claim 1, Kumagai/Yamaguchi discloses the claimed invention except that the feeding terminal is fixed to the circuit substrate with a conductive bonding material. It would have been an obvious matter of design choice to affix the feeding terminal to the circuit substrate using a conductive bonding material as oppose to any other bonding techniques, since applicant has not disclosed that such difference solves any stated problem or is for any particular purpose and it appears that the invention would perform equally well with any bonding techniques.

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Regarding claim 3, as applied to claim 1, Figure 3 of Yamaguchi shows that an inner surface of the card casing is provided with an antenna-rotary-shaft supporting portion that rotatably supports the antenna rotary shaft extending into the card casing through the through hole in such a manner that the antenna rotary shaft is elevated from the circuit substrate.

Regarding claim 5, as applied to claim 1, Kumagai/Yamaguchi discloses the claimed invention wherein the card casing includes a combination of a front cover and a back cover, the front cover being disposed proximate a front surface of the circuit substrate, the back cover being disposed proximate a back surface of the circuit substrate, wherein a first one of the front cover and the back cover is provided with an extended wall segment extending along an outer surface of a side wall of a second one of the front cover and the back cover. Kumagai/Yamaguchi fails to further teach that the extended wall segment having a hook portion on a tip thereof, wherein the second cover is provided with a hook-receiving portion onto which the hook portion is securely hooked, and wherein the front cover and the back cover are combined with each other by hooking the hook portion of the first cover onto the hook-receiving portion of the second cover. It would have been obvious to one having ordinary skill in the art at the time the invention was made to employ the hook portion and hook receiving portion instead of screws since both are equivalent mounting techniques and the selection of any of these known equivalents to mount the front cover to the back cover would be within the level of ordinary skill in the art.

Allowable Subject Matter

6. Claim 4 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

7. The following is a statement of reasons for the indication of allowable subject matter:

Neither Kumagai nor Yamaguchi further teaches, in combination with other limitations, that the feeding terminal has an insertion inlet disposed between the pair of antenna-rotary-shaft elastically-pressing portions and located at an upper portion of the feeding terminal, wherein the card casing includes a combination of a front cover and a back cover, the front cover being disposed proximate a front surface of the circuit substrate, the back cover being disposed proximate a back surface of the circuit substrate, wherein the antenna-rotary-shaft supporting portion is disposed at an inner surface of the front cover of the card casing, wherein the antenna rotary shaft is rotatably supported by the front cover, wherein when the front cover is disposed over the circuit substrate on the back cover such that the front cover and the back cover are combined together, the antenna rotary shaft is inserted between the pair of antenna-rotary-shaft elastically-pressing portions of the feeding terminal, wherein when the antenna rotary shaft is completely inserted between the pair of antenna-rotary-shaft elastically-pressing portions, the antenna-rotary-shaft elastically-pressing portions elastically press against the antenna rotary shaft so as to sandwich the antenna rotary shaft, whereby the antenna rotary shaft is electrically connected to the electric circuit of the circuit substrate.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. US 2003/0123235 A1 discloses a WLAN card with an antenna rotatably attached thereto.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to HOANG V. NGUYEN whose telephone number is (571)272-1825. The examiner can normally be reached on Mondays-Fridays from 9:00 a.m. to 5:00 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Douglas Owens can be reached on (571) 272-1662. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Hoang V Nguyen/
Primary Examiner, Art Unit 2821